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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,711	10/29/2003	Cechan Tian	064731.0378	5574
5073	7590	05/18/2007	EXAMINER	
BAKER BOTTS L.L.P.			BELLO, AGUSTIN	
2001 ROSS AVENUE			ART UNIT	
SUITE 600			PAPER NUMBER	
DALLAS, TX 75201-2980			2613	
			NOTIFICATION DATE	DELIVERY MODE
			05/18/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mike.furr@bakerbotts.com
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Office Action Summary

Application No.

10/695,711

Applicant(s)

TIAN ET AL.

Examiner

Agustin Bello

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/13/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5-10, 12-14, 16-18, and 20-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Way (U.S. Patent Application Publication No. 2003/0025961).

Regarding claim 1, 9, 12, 13, 16, 23, 30, 32, and 33, Way teaches an optical ring operable to communicate optical traffic (reference numeral 12 in Figure 6); a plurality of nodes (reference numeral 24, 26 in Figure 6) coupled to the optical ring, each node operable to passively add and drop one or more traffic streams to and from the optical ring, each traffic stream comprising at least one channel; and the plurality of nodes comprising: a hub node (reference numeral 24 in Figure 6) operable to selectively pass or terminate a plurality of individual sub-bands of the optical traffic; and a plurality of sub-band nodes (reference numeral 26 in Figure 6) each operable to terminate a respective sub-band of the optical traffic.

Regarding claims 2, 17, 24, Way teaches that the plurality of nodes further comprises a coupler node (i.e. any one of nodes 26 or the bottom-most node in Figure 6) operable to drop and continue optical traffic passing through the coupler node.

Regarding claims 3, 10, 14, 18, 25, 31, 34, 38, 44, Way teaches that the hub node comprises: a demultiplexer (i.e. "Three-color Splitters" of Figure 13) operable to demultiplex

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the optical traffic into its constituent sub-bands; a plurality of switches (i.e. the “1x1” switches of Figure 13) each operable to pass or terminate a respective sub-band; and a multiplexer (i.e. “Fiber Coupler” of Figure 13) operable to multiplex each sub-band passed at the plurality of switches for communication on the optical ring.

Regarding claims 5, 20, 26, Way teaches that the plurality of sub-band nodes each comprise a sub-band filter operable to block optical traffic in a respective sub-band (paragraph [0087]).

Regarding claims 6, 21, 27, Way teaches a combination sub-band node (Figure 20C) operable to terminate a plurality of sub-bands of the optical traffic.

Regarding claims 7, 22, 28, Way teaches that the combination sub-node comprises a plurality of cascaded sub-band filters (reference numeral 154 in Figure 20C) each operable to block optical traffic in a respective sub-band.

Regarding claims 8, 29, Way teaches an optical ring operable to communicate optical traffic (reference numeral 12 in Figure 6); a plurality of nodes coupled to the optical ring (reference numeral 24, 26 in Figure 6), each node comprising at least one transport element operable to passively add and drop one or more traffic streams to and from the optical ring, each traffic stream comprising at least one channel; and the plurality of nodes comprising a combination node (Figure 23), the combination node comprising: a coupler node transport element (reference numeral 120 in Figure 23) operable to drop and continue optical traffic passing through the coupler node transport element; and a hub node transport element (i.e. “Circulator” and reference numeral 166 in Figure 23) cascaded with the coupler node transport element, the hub node transport element operable to selectively pass (i.e. all wavelengths not

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reflected by the tunable filter) or terminate (i.e. via reference numeral 166 in Figure 23) a plurality of individual sub-bands of the optical traffic.

Regarding claims 35 and 41, Way teaches an optical ring (i.e. "Ring" in Figure 19) operable to communicate optical traffic; a plurality of nodes (i.e. a node for each of the three rings) coupled to the optical ring, each node operable to passively add and drop one or more traffic streams to and from the optical ring, each traffic stream comprising at least one channel; the plurality of nodes comprising: a plurality of hub nodes (i.e. a hub node for each of the three rings) operable to selectively pass or terminate a plurality of individual sub-bands of the optical traffic; and a plurality of sub-band nodes (reference numeral 26 in Figure 6) each operable to terminate a respective sub-band of the optical traffic; wherein the plurality of hub nodes form a plurality of photonic domains (i.e. each ring) each operable to communicate different traffic streams in the same sub-bands without interference (paragraph [0071]).

Regarding claims 36-37 and 42-43, Way teaches that the plurality of hub nodes comprises two and three photonic domains (Figure 19).

Regarding claims 39 and 45, Way teaches that the plurality of switches are reconfigurable to provide optical shared path protection in the event of an error in the network (paragraph [0070]).

Regarding claims 40 and 46, Way teaches that the error comprises a fiber cut (as noted by "X" in the Figures).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 11, 15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Way in view of Johnson (U.S. Patent No. 6,868,201).

Regarding claim 4, 11, 15, 19, Way differs from the claimed invention in that Way fails to specifically teach that the demultiplexer and the multiplexer comprise array waveguides. However, Johnson teaches that the demultiplexers and multiplexers comprising array waveguides are well known in the art (column 8 lines 6-16). One skilled in the art would have been motivated to employ demultiplexers and multiplexers comprising array waveguides in the hub node of Way so that different band can be multiplexed and demultiplexed by the same device (column 8 lines 13-16 of Johnson). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to include demultiplexers and multiplexers comprising array waveguides in the hub node of Way.

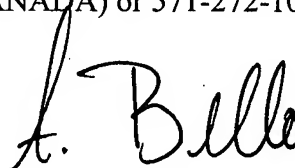
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "A. Bello". The signature is fluid and cursive, with a large initial "A" and a stylized "Bello".

Agustin Bello
Primary Examiner
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AB